On the interactive achievement of space – and its possible meanings

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DOI: https://doi.org/10.1515/9783110312027.276

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"Your social situation is not your country cousin" (Goffman 1964: 134).

1. Preliminaries

The broad issue of language and space, which is intertwined with the issue of interactional space but goes, at the same time, beyond, will not be dealt with systematically in this paper. Instead, I will confine myself to the role of space in face-to-face interaction at the conceptual level of conversational analysis ("CA" in what follows to refer to approaches that have been inspired by the classic CA studies and that have been further developed according to different analytic needs within sociology and linguistics, inside and outside the Anglophone world). While there is a rapidly growing number of empirical studies dealing with interactional space in one way or another (see below), an overall theoretical framework for integrating the different approaches and straightening out the dizzying array of terminology is still lacking. The present paper makes some progress in this direction. It is a position paper rather than an empirically based account.

As a starting point, I shall take an approach to space that is typical of CA. Instead of accounting for space in terms of the spatial parameters of a speech situation existing somehow *a priori* to interaction, space and the speech situation itself are assumed to be interactively achieved. Otherwise, space remains a subject beyond the reach of CA – a subject relevant only to, say, physicists, architects and landscape designers. As such, the idea of a given speech situation disappears (Hausendorf 1995), and along with it the idea of hard-core parameters such as space. "The interactive achievement of space" has accordingly become a sort of slogan implicitly and explicitly stated in a number of concrete empirical analyses that have emerged in recent years. These are connected with catchphrases such as "interactional space", "multimodality", "embodiment" or "situatedness" (for recent reviews of the Anglophone literature cf. the relevant handbook articles in

[1] Many thanks to Peter Auer for many very helpful comments – and for advising me on the "theory of affordances" by Gibson (1977).

D'hondt, Östman, and Verschueren 2009; Ziemke, Zlatek, and Frank 2007; Frank, Dirven, and Ziemke 2008; Enfield and Levinson 2006; Kecskés and Mey 2008; Norris and Jones 2005; and for further references including the German-speaking literature the contributions in Schmitt 2007; Mondada and Schmitt 2010; Deppermann and Linke 2010).

In this paper I raise some of the questions lying behind the interactive achievement of space motto instead of repeating, rephrasing and reemphasizing the point that space does not determine what is going on in face-to-face interaction. Take this as a given – and all the interesting questions are still left open. To name but a few:

- What is it that is interactively achieved when we talk about "space"?
- What do we mean by "interactive achievement"? Whatever space may be in the end, might we not be well advised to accept that space is already, in a manner of speaking, present at the beginning of interaction? But what could "interactive achievement" then mean? And what kinds of problems do we encounter when we speak about interaction and its "achievements"?
- How, in detail, does the interactive achievement of space occur? Although there is a language of space (grammar and lexis), there is, obviously, no need to talk explicitly about space in every case. What are the interactive devices and forms (see below) we are looking for when talking about the interactive achievement of space?

Far from suggesting an overall solution to these questions, I will try out the idea of a broad and open concept of interactional space that is bound to the co-participants' emplacement (Streeck, Goodwin and LeBaron 2011) within a concrete speech situation. I believe it is the concrete "here" rather than the abstract space that matters. The kind of problem that we are faced with when we talk about interactional space is then, first of all, one of achieving a mutually shared "here" for perception, movement and action. I will introduce this problem as one of *situational anchoring* that face-to-face interaction is in principle confronted with: interaction has to situate itself. It is one of the genuine problems of face-to-face interaction and it can be split up into the sub-problems of *co-orientation* (referring to perception), *co-ordination* (referring to movement) and *co-operation* (referring to action). The often naively assumed "speech situation" can then be reconstructed as the participants' solution to these problems. According to CA methodology, problems can be taken as interactional jobs or tasks, the solution to which can be reconstructed in terms of devices, i.e. the different ways or methods of doing the job, and forms, i.e. the concrete audible and visible manifestations of devices at the surface level

of discourse. This framework of jobs, devices and forms (Hausendorf and Quasthoff 1992, 1996) will be introduced to avoid conceptual confusion when talking about interactional space, namely the kind of confusion that arises from the idea that space is not only an interactional achievement but also an important interactional resource. To elaborate on this idea – space as resource *and* achievement – I suggest replacing the space-as-achievement motto (see above) with the terminology of co-orientation, co-ordination and co-operation jobs and their devices and forms. We can then systematically account for space as a resource that is used when fulfilling the task of situational anchoring with its subtasks of co-orientation, co-ordination and co-operation. In contrast to bodily and verbal resources that have been largely dealt with in recent research (on embodiment and deixis, for instance, see above), the spatial resources have often been more or less neglected.

The general point is to come to terms convincingly with details of theory, methodology and empirical data while taking seriously the matter of interactive achievement. Of course this holds true for more than just space or situation. It generally concerns the acknowledgement of phenomena such as natural language, the participants' bodily and cognitive facilities or social "macro" structures (to name only what is obvious) as resources for face-to-face interaction. Note that it hardly seems possible to imagine anything that has not been claimed to be "interactively achieved" in discourse. Nearly all aspects of the "world" can gain the status of interactive achievement (hierarchy and culture, gender and ethnicity, institutions and social belongings, contexts and situations, etc.). CA research of the last three decades or so is – among other things – an attempt to widen our scope of phenomena that are interactively achieved – and to somehow disregard the scope of phenomena interactively made use of. The statement of interactive achievement is, therefore, by no means exclusively relevant to space. But space – in opposition to time ("sequentiality"), which has been our predominant concern in CA – seems to be an elusive concept, given that our CA-trained point of view remains a language-oriented one, at least for those of us applying it for linguistic purposes. I hope this will become less abstract as we proceed.

Before turning to possible meanings of interactional space in the next section and going into the details of the problem of situational anchoring thereafter, let me include a side note on previous research traditions. Ever since early CA research discovered the analytic prospects of recording and transcribing spoken discourse (telephone conversation, strictly speaking) which is of great value in reconstructing the details of verbal sequentiality (cf., for instance, the contributions in Hausendorf 2007), the visual manifestations of face-to-face interaction that had been previously studied based on video re-

cordings within so-called context analysis (Kendon 1990a, first 1973) have to some extent been lost from sight. It is not by chance that this analytical preference for verbal data brought with it a long-lasting data preference for audio instead of video recordings – which has only recently been reversed. Nevertheless, we do not have to start from scratch when turning to the issue of situational anchoring. There is a great deal of research within this "context analysis" tradition (Kendon 1990c) that has already provided evidence for co-orientation, co-ordination and co-operation. An outstanding example is Kendon's impressive study of greeting sequences at a private outdoor party which provides strong evidence for bodily interaction (partly described in terms of "co-orientation" and "co-ordination") that starts long before the first verbal greeting pair ("close salutation") appears (Kendon 1990a). Apart from details and terminology, the question is: Are we actually beyond these early studies? And if so, what is new and what is the substantial progress we have made or could at least claim to have made when returning to old wine in new skins?

My answer is threefold:

- To begin with, there is new technology, i.e. electronic data of digitalized video recordings that allow for computer aided simulations and presentations of face-to-face interaction. It was the then-innovative technology of videotape recorders that were available to everybody that triggered early interaction studies and allowed for new insights. Today, it is the innovative technology of electronic video recordings that will surely trigger new types of data and, along with new forms of (re)presentation, also fresh concepts of situation. This process has already started, but, interestingly enough, it has started outside our research (namely within AI-research: cf., for instance, Pfeiffer 2010a, 2010b and other research projects conducted at the Bielefeld Center of Excellence on Cognitive Interaction Technology (CITEC): http://www.cit-ec.de/).
- Second, there is methodology. What we have learned about the structural properties of sequentiality on the basis of audio recordings has to be adopted when studying multimodality based on video recordings (Schmitt 2006). In contrast to what at first seems evident, the speech situation is a strictly dynamic phenomenon emerging step by step from manifestations of co-orientation, co-ordination and co-operation that have to be accounted for empirically. Accordingly, the simultaneity of what is visible has to be transformed in terms of what has been made visible among the participants sequentially (Schmitt 2006). Furthermore, there are spatial resources which co-orientation, co-ordination and co-operation can attach to and whose methodological implications have been scarcely taken

into account up to now (cf., for instance, Emmison and Smith 2000; Kissmann 2009).
- Last but not least, there is theory, i.e. a theory of face-to-face interaction as a genuine social reality. In the end, interactive achievement depends on the assumption of interaction as a system of problem solving and multitasking. What we are heading for in research on interactional space is no longer some sort of human ethology (which context analysis might have had in mind: cf., for instance, Kendon 1990a: 201) but a theory of face-to-face interaction as a particular manifestation of communication.

The last argument is the only one I will return to at any length in this paper, while the other two arguments (technology and methodology) will not be followed up here (except for spatial resources). I have chosen to resist the temptation of providing empirical evidence and picking out some potentially illustrative pieces of data, as this would remove me too far from the theoretical paper I am aiming at.

2. What does space represent in CA research?

What exactly does the notion of space refer to when the interactive achievement of space is discussed? It is striking what CA and related research includes under "interactional space" or "spatial" even at first glance. In addition, there are manifold overlaps. Incidentally, the notion of interactional space is sometimes also used in a metaphorical way to refer to the participants' rights and obligations (for instance, with regard to the regularities of courtroom interaction: Adelswärd, Aronsson, Jönsson, and Linell 1987). In contrast, our concept of interactional space is to be taken literally. Space then can be
- what is directly accessible to the participants' sensory perception, i.e. what is visible, audible, can be touched … (*perceived space*: something just here, over there …)
- what is available to the participants' body movements, i.e. what is within reach, "stand-on-able", "walk-on-able" (Gibson 1977, 1968), go-through-able, pass-by-able … (*used space*: a line of seats, a passage, a pedestrian area …)
- what is known as a social group's territory (*ideological* or *imagined space*: a nation, a state, a principality …)
- what is prepared for socially organized (institutionalized) and highly specialized use: *built* and *furnished space* (buildings like a sport stadium, a hospital, a court, a university and their interiors)

- what is topographically defined as a distinct space and/or place (*named space*: towns, cities, a continent, a street, a place)
- what is geographically outlined by means of cartography (*measured space*: borders between territories, parts of the earth)
- what has naturally emerged during the last ice age or thereabouts (*formed space*: mountains, valleys, deserts, plains, lakes, glaciers …)
- what is linguistically defined through ways of speaking different languages or dialects (*spoken space*: a dialect region, a linguistic area)
- etc.

It goes without saying that this list is not exhaustive in any sense. But it illustrates the range of phenomena being talked about when we use a term like space. Presented in this way, our topic is obviously an interdisciplinary one relevant to many disciplines and approaches: geology (formed space) and geography (measured space), cognitive, social and ecological psychology (perceived space), ethology (used space), political sciences and sociology (ideological and imagined space), architecture (built and furnished space), and, last but not least, linguistics (named and spoken space). According to the interdisciplinary variety of perspectives, space has been dealt with rather differently as far as theory and methodology are concerned. Take, for instance, the ways in which space has become a topic within linguistics when the relation between space and language is discussed. Roughly speaking, there are three different ways to account for this relation:

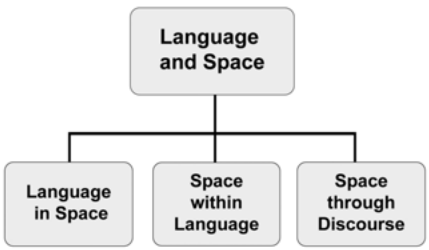

Fig. 1. Space as a topic in linguistics

To begin with, one could argue that language is bound to space and that it is a phenomenon that exclusively appears in space. We then talk about speaking and listening, spoken (and heard) discourse, and orality. Space in spoken discourse can be something very small (a corner within a room, i.e. a part of built and furnished space) and something very big (a linguistic area as a part of spoken space). As a part of spoken discourse, it has traditionally been

studied within area and/or contact linguistics and dialectology, often as a matter of linguistic variation (cf. the recent handbook by Auer and Schmidt 2010 and other studies indicating a renewed interest in concepts of space within this research: Muysken 2008; Bickel and Nichols 2006).

Conversely, one could argue that space is something that appears within language. We then talk about spatial language (Hayward and Tarr 1995): grammar and lexis, grammatical and lexical structures of natural languages, grammaticalization and lexicalization pathways in which spoken spaces have found their fixed and solidified forms, so to speak. Named space is an obvious outcome of this kind of space within language. Different "grammars of space" illustrated by cross-linguistic research (cf. Levinson and Wilkins 2006) provide further evidence of this kind of space within language. A lot of research on deixis has followed this direction (cf. the recent review by Sidnell 2009).

Finally, there is a third way of dealing with language and space which states that space is, first of all, a social construct emerging from discourse. It is from this point of view that the language and space issue could benefit from what has been called a "spatial" and "topographic turn" in social sciences or a "sociology of space" (cf. Löw 2001; Schroer 2007; Bachmann-Medick 2006; Döring & Thielmann 2008). We then talk about language in terms of its contribution to discourse strategies of constructing certain views of space and spatiality. Take, for instance, political and regulatory discourses of landscaping and town planning and how they shape our view of urban and rural environments, of built and furnished space. Space often becomes a contested concept within such discourses, a topic of negotiation and deliberation (cf., for instance, Backhaus, Reichler & Stremlow 2007; Richardson & Jensen 2003 and the review by Sidnell 2009).

At a theoretical level, there is no reason to restrict our concept of interactional space to one of these approaches and therefore it is better not to exclude certain types of spaces or restrict ourselves to selected types of spaces by means of extant definition (stating, for instance, that there are "physical" spaces e.g. formed and built spaces as opposed to "interactional" ones). Otherwise, we would miss some interesting connections between the different approaches and between the disciplines. We would, furthermore, skip over many ways in which all of these spaces are interactively achieved. But as a consequence of this, we will need a stand-alone concept of space suited to containing all these possible (perceived, used, built, formed, spoken, named …) spaces that, at the same time, allows for the elaboration of the connection between space(s) and face-to-face interaction.

Perhaps the wisdom hidden within ordinary language can help us. Consider the deictic expression *here* and its use in everyday conversation. It is

easy to imagine (and to illustrate empirically) that it could refer to each of our spaces: If we think of the unlimited variety of locations *here* can refer to in spoken (and written) discourse, we end up with a list of spaces like the one given above. Space, then, stands for the possible location of an interactional episode: *Where* did it happen? I would like to suggest that this is the place where "spatiality" makes its appearance, in whatever dimension you like, or more precisely, the participants like. Spatiality is then a part of the *origo* (to use Bühler's term) of the speech situation, or, in line with Goffman, it is a crucial aspect of co-presence. Co-presence, i.e. an interactive "we", implies space and spatiality, i.e. an interactive "here". As such it must be interactively achieved. It is in no way predetermined where "here" is, but is up to the participants to make clear in one way or another which kind of space is to be relevant for their interactive "here". As an aspect of co-presence emerging within and by means of face-to-face interaction and comprising what could possibly be referred to by using the word *here*, space, indeed, appears to be an interactive achievement. That is at least a start, but not one that gets us very far – unless we turn to the meaning of the matter of interactive achievement itself. This involves the relation between space and interaction while most previous linguistic research on space and language has focussed on the relation between cognition and space ("spatial cognition": Levinson 1996: 356; Peterson, Nadel, Bloom & Garrett 1996; Levinson 2003; Hickmann & Robert 2006), which is a subject in its own right.

3. What do we mean by interactive achievement of space?

What exactly are we referring to by interactive achievement: a *creatio ex nihilo*, some sort of reproduction, a communicative construction? Who or what lies behind the achievement: Who is achieving something? Questions like these make clear reference to the general theoretical background of CA. But if one wants to make inroads into the matter of interactive achievement, there is no way to avoid entering into some sort of theory of interaction.

Let us start by considering the way a sociologist like Goffman goes about studying the issue of face-to-face interaction. For Goffman, as is well known, face-to-face interaction is "a little system of mutually ratified and ritually governed face-to-face action" arising "whenever two or more individuals find themselves in one another's immediate presence" (Goffman 1964: 135). From this it follows that co-presence is not a condition that exists externally or preceding the social situation, but is achieved through the perception of being perceived by others (Hausendorf 2003) – an important insight

that I will return to later on. This is the moment when something starts that goes beyond the participants displaying meaning and understanding: a little system of its own, a social reality *sui generis*. We must keep in mind that when speaking about *interactive* achievement, we are referring to a social system (Luhmann [1972] 2005). Much of Goffman's work is devoted to the systematics of this social system, which has been dismissed to some extent in more recent research. Consequently, there is a lack of a well-grounded theoretical framework of interaction as a genuine *social* reality – even when "situated human interaction" is explicitly set on the agenda. Take, for instance, Goodwin (2000), who emphasizes "situated activity systems" as a relevant "environment" to investigate "human action, cognition and talk-in-interaction" (2000: 1519). What is then the proper subject of such research: "human action", "cognition" or "talk-in-interaction"? Or the "situated activity system" itself?

For this reason, we need some sort of theory of interaction. One particularly interesting aspect is the idea of face-to-face interaction as a multitasking system, triggered by a set of interactive problems. I argue that for the study of interactive achievement, these problems are best understood as tasks that face-to-face interaction is confronted with. We can, then, return to our space-as-*here* statement (see above, section 2), in order to explore this and to understand how space (in all its facets) can make a difference in interaction. A long tradition of empirically fruitful CA and related research makes it easy to give a picture of what can be counted as essential interactive tasks. The following figure uses questions to indicate the kinds of problems that have to be "solved" simultaneously and, correspondingly, the kinds of tasks that have to be completed simultaneously (see Fig. 2, the "it" in some of the questions refers to interaction). The system is meant to hold true for every episode of face-to-face interaction. Strictly speaking, it is by solving these problems that interaction actually comes into being, which is related to the status of interaction as a self-referential, "autopoietic" social system (Luhmann 1984). This is not to say that the empirical manifestation is in each and every case immediately obvious.

This manner of thinking about interaction in terms of problem solving will be familiar to CA-trained readers. Conversation as problem solving is a concept introduced right from the beginning of CA research. For instance, Schegloff & Sacks (1973) discuss the closing problem. Cf., furthermore, the conceptual framework offered by Kallmeyer and Schütze (1976). The general idea of interaction as multitasking can be found in Goffman (1977), although Goffman did not come up with a list of concrete tasks. The empirical phenomena behind these tasks can easily be related to the standard themes

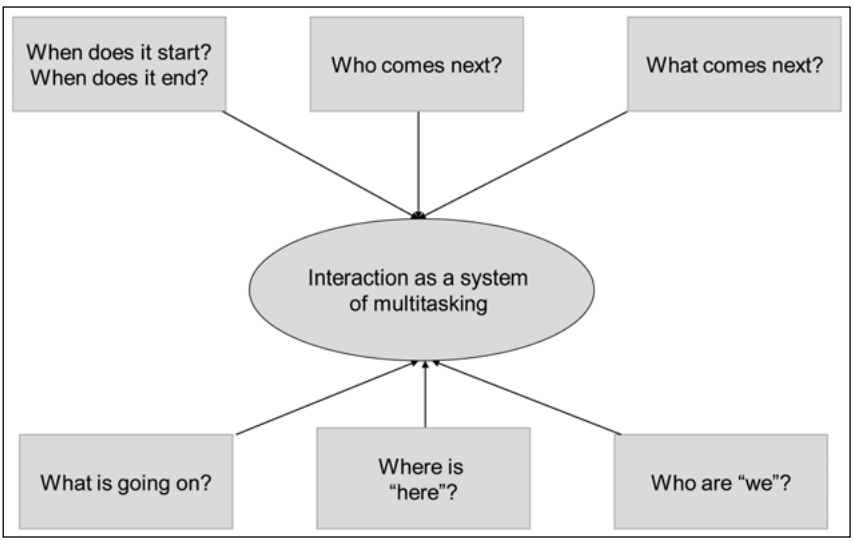

Fig. 2. Interaction as a system of multitasking

of CA research and have often been noticed (cf., for instance, Auer 1986: 27 with a similar list) but scarcely developed as genuine problems of face-to-face interaction:

- opening up and closing of interaction; technically speaking: the achievement, maintenance and termination of co-presence (When does it start? When does it end?),
- turn taking (Who comes next?),
- the organization of contributions to conversational topics (What comes next?),
- contextualization and framing (What is going on?),
- presentation of self and others and social categorization (Who are "we"?) and, last but not least,
- situational anchoring (Where is "here"?).

I suggest that these tasks refer to genuine interactive problems that must be solved in whatever way possible when interaction comes into being. My theoretical argument is: It is precisely the handling of these problems within and through interaction that allows us to talk about

- co-presence of participants,
- turn taking,
- coherence of contributions,

- context of utterances,
- situation of speech, and
- self and others

as interactive achievements.

Much more could and perhaps should be added. But the issue I wish to address does not only concern these interactive tasks in general. Since our interest is in interactional space, we had better move on to the task of situational anchoring ("Where does it happen?"). I would like to propose replacing the 'interactive achievement of space' with the task of situational anchoring. The benefit is: Situational anchoring is a genuinely interactive task which allows us to study the different resources participants can make use of when doing this job. We will see that space, in all of its relevant aspects (see above, section 2), will indeed re-enter the scene as a powerful and complex resource of co-orientation, co-ordination and co-operation (see section 5 below).

The task of situational anchoring has been much less investigated than the other tasks. Take, for instance, the who/what-comes-next-problems, and consider the way in which these time-in-interaction problems have been successfully conceptualized in terms of sequentiality. Although there is the honourable tradition of "context analysis" (see above, section 1), there can be no doubt that we are still searching for an equally powerful conceptualization of the problems of space-in-interaction. Along with the task of situational anchoring, space-in-interaction has long been neglected.

Before exploring the task of situational anchoring and its subtasks in some detail, it is important to be aware that space is intertwined with at least some of the other problems, too. Here are just a few examples:

- Clearly, space can become a topic of discourse, since it is explicitly talked about (by means of spatial lexis and spatial semantics: "space within language", see Fig. 1). It is, as such, a part of the organization of topical talk (what comes next?), which may – but not necessarily – overlap with the task of situational anchoring.
- Space can of course become a cue and a resource for the participants' sense of social belonging and identity (e.g. in terms of origin, country and home). It is, then, a part of the presentation of self and others (who is participating?), perhaps (but not necessarily) overlapping with the task of situational anchoring.
- Space can become a powerful resource to localize an interactive episode within a certain institutional setting (think of a purpose-built space such as a court). It is, then, a part of the task of framing and contextualization (what's going on?), possibly overlapping with the task of situational anchoring.

4. What are the devices and forms of situational anchoring?

Having transformed the interactive achievement of space into the task of situational anchoring, the question still remains: How is situational anchoring fulfilled empirically? If we want to get more than an impressionistic picture, we need to explore the task of situational anchoring in more detail. I would therefore like to suggest that it is in itself a complex task consisting of three different subtasks (Fig. 3). It follows that the concrete devices and forms (see above, section 1) of situational anchoring must be related to these subtasks. The threefold distinction between the subtasks separates sensory perception, bodily movement and social action. These are to be understood as the relevant dimensions of situational anchoring. A common *here* must be achieved for all three. There is a participants' *here* of perception (*Wahrnehmungsraum*: Kruse & Graumann 1978: 179) that could be studied in terms of different modes of sensation (cf. the analysis of classroom interaction by Breidenstein 2004 showing that there are different spaces according to visibility, audibility and touchability partly overlapping and partly dispersing). There is a participants' "here" of locomotion (treated as being part of the *Wahrnehmungsraum* but nevertheless accounted for separately by Kruse & Graumann 1978). Furthermore, there is a participants' "here" of action (*Handlungsraum* in Kruse and Graumann's terms). Corresponding to these three types of "here", there are three types of subtasks: A task of co-orientation, a task of co-ordination and a task of co-operation. Particularly the terms "co-orientation" and "co-ordination" are widespread in both earlier and more recent studies (Kendon 1990a: 160 talks about an "orientational frame"; cf. Deppermann & Schmitt 2007 for an explicit account of the notion of "co-ordination"). But they generally do not refer to interactional tasks in the strict sense introduced here (section 3) and they are generally not related to the distinction of perception, movement and action.

It is not by chance that "co-" prefixes each task: We are talking about genuine *interactive* problems, which are different from the types of problems a single participant might be confronted with who is, of course, steadily perceiving, moving and acting. To start with, the "co-" implies that the individual must do this together with others doing the same: That calls for *joint* attention, *joint* movements and *joint* action. The "joint" in joint attention, joint movements and joint action implies the emergence of interaction as a social reality *sui generis*. The "co-", therefore, means that perceiving, moving and acting become interactive forms, i.e. manifestations of interaction itself. Again, the question is: How does it happen?

Perhaps it is best to start with perception and co-orientation. There can be no doubt that *co-orientation* is of central concern for interaction. It refers to

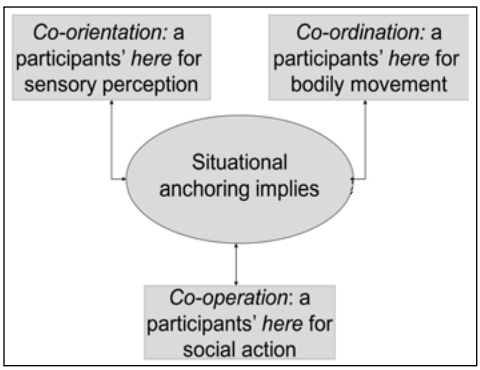

Fig. 3. Problems of situation

sensory perception as perhaps the most important medium of interaction. It is the moment "when two or more individuals find themselves in one another's immediate presence" that makes up that little system of interaction (Goffman 1964). And both finding each other in their immediate presence, obviously, depends on mutual perception, on indicators by means of which participants know that they have seen each other and, in doing so, become "present" (cf. Kendon 1990a: 153). More precisely, it is a mechanism of perceived perception that lies behind interaction (Hausendorf 2003). This was Goffman's initial argument. It is theoretically worked out in the framework of the social-systems approach of Luhmann (1984: 560). In this approach, interaction is taken to be a particular type of social system, i.e. a particular manifestation of communication, namely communication under the terms of co-presence (cf. Hausendorf 1992; Kieserling 1999). Independent of the sociology-of-interaction tradition that Goffman has made popular, the matter of perceived perception has recently become an issue for developmental and cultural psychologists as well as primatologists under the heading of "joint attention" taken to be a manifestation of social cognition (cf., for instance, Bruner 1995; Dunham & Moore 1995; Tomasello 1995; see below, this section). Another recently discussed issue is that of "presence" in virtual or online and hybrid environments (cf., for instance, Davenport & Buckner 2005; Turner & Davenport 2005).

What becomes very clear from these approaches is that presence is not a physical fact but a social construct, interactively achieved by perceiving that one has been perceived. This holds for the opening of interaction which starts (sometimes long) before the first *hello* is spoken and heard (as shown, for instance, by Kendon 1990a and taken up in some of the contributions in Mondada & Schmitt 2010). The most obvious manifestation of perceived

perception is, of course, eye contact. This is the reason why looking each other in the eye is risky: as soon as eye contact goes beyond the fleeting fragments of seconds of random gaze, interaction as a genuinely social phenomenon starts and can no longer be ignored (whatever might be done afterwards). Perceived perception is the basic mechanism for achieving presence. It must be maintained throughout the exchange although the participants, of course, need not maintain eye contact all the time. In many cases, there is a minimum of perceived perception (Hausendorf 2003: 258; sometimes also referred to as "common ground": LeVine 2007; Enfield 2008) that is taken for granted unless there are clear indicators of a participant's denial of attention (for instance, someone falling asleep). Another type of problem with perceived perception emerges when there is reason to assume that the vis-à-vis is not an intentional agent so that attention cannot be considered *intentional* perception (maybe in the case of mental disease or young infants). From this point of view, it becomes clear that co-orientation and joint attention do not necessarily coincide with each other, as stressed in research on joint attention during child development (cf. the contributions in Moore and Dunham 1995; see below).

In some cases, co-orientation indeed goes beyond this minimum of taken-for-granted attention. These are the cases in which the co-orientation task and, along with it, the situational anchoring task come to the fore. Note that sensory perception is not an interactive phenomenon *per se.* Accordingly, not everything that participants can and do perceive while engaged in face-to-face interaction becomes relevant for the ongoing interaction. On the contrary, it is a rather small selection of what is perceived by participants that achieves the status of an interactive relevant phenomenon. Provided that the participants stay within earshot, the perception of what is spoken can be taken for granted (although not really perceived in itself). This is one of the great achievements the evolution of natural language has brought about. Interaction can, in fact, be restricted to the perception of spoken language (as is the case, for instance, in telephone conversation). But there are cases in which the participants' visual, tactile and even olfactory perception can become a relevant part of what is going on; take, for instance, an exhibition of objects and artefacts. The question then is how perception can become an interactively reliable phenomenon, i.e. a manifestation of interaction. This is exactly the problem of co-orientation. And it also holds for co-ordination and co-operation as far as bodily movement and action are concerned.

Co-orientation, co-ordination and co-operation often go together. One could argue that co-operation is the most demanding problem since it

requires at least co-orientation and, in many cases, co-ordination too. Since co-ordination also requires co-orientation, co-orientation is basic and has to be assumed in all face-to-face interaction – even in "unfocused" interaction (Goffman 1964). Without it, there is no interaction. But the matter is not as simple as it may sound. There is, for instance, good reason to assume that co-orientation, co-ordination and co-operation can fall apart. Goffman's examples of "unfocused" interaction may be telling cases in this regard. They show how interaction can be restricted to the perception of being perceived – without ensuing manifestations of co-ordination and co-operation. Fleeting encounters between pedestrians ("an exchange of glances between strangers as they pass on the street"; Kendon 1990a: 153; for a detailed account see Ciolek & Kendon 1980) or gatherings in waiting rooms or elevators show that there is interaction consisting of a minimum of reduced shared attention – a potential for co-ordination and co-operation that can but need not be exploited by those present. One could argue that even these reduced encounters are manifestations of social practice, i.e. achievements of co-operation. But the co-operation in this case would consist solely of avoiding further co-operation. Another highly telling case is interaction between adults and young children, i.e. cases in which co-operation is still being developing and learned. There is evidence of some reduced forms of co-orientation (namely in terms of following an adult's gaze) before joint attention (Tomasello 1995: 105). In other words, co-orientation could be regarded as a vehicle for developing co-ordination and co-operation. Additionally, there seems to be "pure" co-orientation and co-ordination among non-human primates (Tomasello, George, Kruger, Farrar & Evans 1985), which raises the question of what further assumptions are implied in joint attention. Tomasello (2000) argues that it is, first of all, the assumption of *intentionality*. This argument goes with our understanding of face-to-face interaction as communication, i.e. participants make a distinction between the *information* that there is something interesting enough to be looked at and the *message* that there is something alter wants to show ego. This argument follows Luhmann's approach (1984: 193): Drawing a distinction between *information* and *message* ("Mitteilung") is the sense of *understanding* ("Verstehen") and the beginning of communication (starting from *alter*, so to speak). Linguists typically have an issue with this definition since they are trained to think of communication from the beginning, namely a speaker's (*ego's*) intention to communicate. Luhmann's point is: It is *alter* who has to make an assumption of intentionality, i.e. draw a distinction between information and message. Whenever s/he can be expected to do so, communication starts whether there has been some foregoing intentionality or not. Perhaps this is an

achievement that depends on conditions we have not yet sufficiently examined in our research.

So much for the relation between the three subtasks. Some words, then, about the devices and forms (see above, section 1) of co-orientation, co-ordination, and co-operation are in order. The following cases make clear the direction in which we have to look. To begin with, *co-orientation* is primarily achieved in terms of mutual perception – strictly speaking, in terms of perceived perception. It is, in principle, the task of making perception perceptible in itself. A prototypical solution for this requirement is a verbal deictic expression like *this* accompanied by finger pointing. In line with recent approaches to deixis from very different starting points (cf., for instance, Kleiber 1983; de Mulder 1996; Hausendorf 2003; Weinrich 2005: 444), one could argue that the forefinger does not point but displays an act of seeing. The forefinger of the outstretched arm can accordingly be considered a kind of visualized gaze (Hausendorf 2010). It therefore does not come as a surprise that finger pointing is essentially improper for identifying objects, as recently suggested by experimental studies in AI (Pfeiffer 2010a). Both finger pointing and a simultaneous verbal deictic expression contribute to co-operation in transforming an individual act of visual perception into an interactive move. It is an intention of letting the other take part in perception that is communicated by finger pointing as well as verbal deixis ("joint attention" in the sense of Tomasello 1995). Deixis is therefore a device of co-operation which can take verbal as well as nonverbal forms. Another less striking nonverbal device of co-operation is the participants' joint alignment of the direction of gaze: Ostentatiously orienting one's own attention in the same direction as the attention of others, perhaps towards something *in front* and *below*, might suffice to establish co-orientation. The message is then: There must be a relevant something *in front* and *below* – otherwise there would be a small interactive scandal.

As mentioned above, *co-ordination* usually implies co-orientation. But it goes beyond it. Note that participants are sensory systems which are locomotive, i.e. free to move and change places and positions. Participants' locomotion is a potential problem since it principally endangers co-presence and co-orientation: For those sitting around a table and bound to stay fixed on a chair it is easier to maintain shared attention than for those in motion (e.g. walking around in an exhibition hall). Generally speaking, the problem is to stay together, to keep alive the mutuality of co-presence when in motion. The requirement is one of *pack behavior* as Goffman was not afraid of putting it (1974: 19), and it has to be learned. Moving around takes a lot of attention and perceptive capacities so that those in motion cannot maintain eye con-

tact all the time and therefore cannot easily take for granted their being together. Accordingly, it takes more than perception to move around together with others, it requires locomotion that demonstrates its mutuality. Obviously, *distance* matters in this regard. We therefore consider "proxemics" (Hall 1976; cf. also Wegner 1985) a solution to our problem of co-ordination: Keeping up a distance of reach and staying within each other's range of perception (for instance, staying in earshot) in a stable and lasting, non-random way is an effective way of showing that a group is moving together. Holding hands or having arms around each other while walking is also a clear, but rather ambitious, case since it depends on intimacy (albeit depending on cultural norms). The synchronization of movements is another phenomenon that could be mentioned here: Participants "doing the same" (walking in the same direction, turning round in the same direction, staying at the same place) are often considered to be "together". Synchronization, however, is not only an effective but also a very demanding answer to the co-ordination problem. It requires intense training in some cases, e.g. a dancing couple (Loenhoff 2003; Müller & Bohle 2007) or a team at work. Furthermore, it is often supported by verbal directioning or by reassuring eye contact. All these phenomena are well known and my only point here is to say that they can be related to a problem of co-ordination as a relevant part of the situational anchoring task. While the problem of co-orientation is related to perception, the problem of co-ordination is related to locomotion.

Co-operation, finally, depends on co-ordination. It goes beyond it in that co-operation entails the job of achieving, maintaining and dissolving formations and configurations best suited for certain types of joint social practice. Staying face-to-face is perhaps the most prominent formation of this kind (Kendon 1990b; Ciolek & Kendon 1980), which gave a name to interaction as a genuinely social phenomenon ("face-to-face interaction"). But it is only one example among a world of possible configurations depending on the type of social action in question (side by side, face-to-back, back-to-back …) and depending on the type of environmental circumstances the formation system is embedded in (cf., with a fine-grained differentiation of degrees of intimacy and distance, Ciolek & Kendon 1980). Formations and configurations become more challenging the more participants are engaged in the encounter (formations in circles and semi-circles, formations in queues …). Guided tours provide good examples for studying such formations (cf. Mondada 2007; Kesselheim 2010; Stukenbrock & Birkner 2010). To sum up, formations (or configurations as termed by Vom Lehn und Heath 2007) are manifestations of co-operation, i.e. some sort of social action or *Sprachspiel* participants jointly contribute to. Often, seeing a

formation allows us to draw conclusions and inferences as to the kind of social activity that is going on – without hearing a single word.

Through co-operation with its formations and configurations, sequentiality enters the scene: The simultaneity of co-orientation and co-ordination (synchronicity!) is transformed into the sequential order of turns, verbal as well as bodily, with its well-known implications for "turn taking". This is the moment when language, too, makes its striking entrance: One might argue, in ontogenesis as well as phylogenesis, that developed forms of sequentiality depend on natural language, or precursors of speaking.

5. What are the resources co-orientation, co-ordination and co-operation can draw upon?

In this section, I will argue that there are at least three types of resources for situational anchoring: There is co-presence providing bodility and cognition, there is natural language providing highly conventionalized and highly structured linguistic forms, and there is space providing a rich variety of environmental "affordances" (Gibson 1977). While bodily and cognitive resources as well as verbal resources have been described extensively, spatial resources have often been neglected. I will therefore concentrate on the latter and will only briefly turn to bodily and cognitive and verbal resources.

Let me start off with co-presence. As Goffman puts it, "the natural home of speech is one in which speech is not always present" (Goffman 1964: 135). Not only turn taking, but particularly the tasks of situational anchoring can be done without speaking (and listening). As was sketched out above, situational anchoring depends, first of all, on the participants' co-presence in the full sense, including sensory activities, bodily movements and spatial cognition. This does not require speaking and listening (imagine, for example, a dancing couple or a fist fight). In this sense, the participants' "here" is basically a perceived and moved-through "here", accessible to the participants' bodies and minds. Co-presence is obviously a major resource to fulfill the situational anchoring job in all dimensions. Humans are, as Luhmann says, the "sensors" of the interaction system (Luhmann 1984: 558) – and highly developed mobile and intelligent sensors at that.

Natural language is another powerful resource for the task of situational anchoring. The grammaticalization of spatial parameters in the world's natural languages gives an impression of how natural language contributes to co-orientation and co-ordination by providing time-tested navigation aids for joint sensory perception concerning basic parameters such as "above" and "below", "right" and "left", "in front" and "behind", "close" and "distant".

This point is well described in cross-linguistic research (Levinson & Wilkins 2006). With regard to face-to-face interaction, for instance, LeVine (2007: 264) shows how place reference fulfills "navigational" functions in conversation, i.e. helps "to verify that perceptions are shared by others". The semantics of the spatial lexicon additionally gives an impression of how known, remembered and imagined spaces can become a part of the participants "here" beyond sensual perception. One could argue that routine answers to everyday challenges of co-orientation, co-ordination and co-operation have become solidified linguistic forms. In this sense, the participants' "here" is often not only a perceived "here" but also an already known "here" depending on the participants' familiarity with and knowledge of discourses on space(s) and place(s). Natural language is therefore a powerful resource for situational anchoring.

Finally, there is space as another resource that participants can utilize. Notwithstanding the interactive achievement of space, we must not think of the situation as being achieved on some kind of *tabula rasa*. One could say that prior communicative events (including face-to-face episodes of interaction) have left their traces in spatial environments which, in turn, have become independent. This is anything but new (cf., as a brief review, Keating 2000, 2006). Goodwin (2000) discusses "material structure in the surround" as "semiotic structure without which the constitution of particular kinds of action […] would be impossible" (1492) or, later on, as "semiotic structure provided by the historically built material world" (1517). The question then is how "the mix of semiotic fields" (1517) that is found in the data could be accounted for theoretically (see below). Take, as another example and with regard to the role of materials, Frers (2009) who studies a patient's file as a "significant factor" in doctor-patient interactions. Further evidence for the role of space, objects, materials and technology can be found within the workplace studies tradition (cf., for instance, Hutchins & Palen 1997; Hindmarsh & Heath 2000) and in approaches towards a "sociology of the seen" (Emmison & Smith 2000: 8; Frers & Meier 2007).

Summing up these different approaches to material structures in the environment, space might appear to be a text that can be and will be *read* by the participants as part of their everyday life competence (Crabtree 2000; Emmison & Smith 2000: 152; Wildgen 2007). Note that the reading of space starts as soon as the participants enter the scene: By taking a seat, following a walkway, opening a door, looking at a picture in an exhibition hall, or resting on a park bench. In some sense, perceived space is, in reality, read space although it may be free of texts. Of course, there is written space as well ("language in the material world", Scollon & Scollon 2003), i.e. graffiti on walls,

traffic signs or notes posted ("Post-its"). But the reading of space does not depend on texts. Think of built space, such as a city, a church, a court, an auditorium, and how its "understanding" will be displayed by means of walking, sitting, resting and looking, i.e. by means of perception, movement and action. This sort of spatial semiotics makes it clear why situational anchoring and framing can go together in an extremely effective manner. It is important to consider these spatial semiotics when we look for the participants' "here". Otherwise, we will not understand how situational anchoring can be fulfilled so effectively, so inconspicuously and so economically as we know it from our familiarity with the everyday routines of face-to-face interaction.

Situational anchoring makes use of what is provided in the spatial environment, i.e. what goes beyond the on-board means of face-to-face interaction and lasts independent of co-presence. This holds true for basic affordances of the natural environment as well as for affordances due to humankind's alteration of the environment, from the invention of tools, objects (such as furniture) and technology to modern architecture of built space. A description of what space as a resource affords the participants can be given in terms of usability: walk-on-ability, stand-on-ability, go-through-ability, climb-on-ability, sit-on-ability, look-at-ability, take-hold-of-ability (Gibson 1977: 68). In this sense, usability relates to the participants' perception, locomotion and action. What space as a resource provides is a complex set of "usability cues". I want to introduce this term analogously to the term "readability cues", which are cues that allow readers to identify aspects of textuality while reading (Hausendorf & Kesselheim 2008). According to this framework, a given text consists completely of readability cues. Apart from what the term "cues" might suggest, readability cues cannot be understood as devices added to the "body" of text. The body of text is itself nothing more than a complex set of readability cues. In a way, readability can be understood as a highly specialized (and evolutionarily late) achievement of usability (although the normative notion of "usability" did not become popular before the modern design of "user interfaces", Norman 2000). Analogous to readability cues, usability cues cannot be restricted to explicit instructions (such as *Keep off the grass*) but relate to the spatial affordances themselves. They are similar to what gestaltist Kurt Lewin introduced as *Valenzen* within the social psychology of *Raumaneignung* (cf. the notion of *Aufforderungscharakter räumlicher Gegebenheiten*, Kruse & Graumann 1978: 184) and what is the origin of the concept of affordances in ecological psychology (Gibson 1977: 77–78). Note that it is the *Aufforderungscharakter* that counts and not what is spatially "given". The former is a social entity, the latter may be a material one.

Spatial usability cues are a powerful resource for all dimensions of situational anchoring. They provide links for co-orientation, i.e. attractors for looking and hearing. Take, for example, the typical furniture in a classroom which establishes a focal point in terms of a "front". Or take the typical "white cube" arrangement of works of art (O'Doherty 1996), which strongly supports the perception of objects as works of art (Hausendorf 2010). Spatial usability cues provide links for co-ordination: preferences for walking and for keeping off, for instance, or prepared and fixed ways as in the check-in line at an airport. Spatial usability cues, finally, provide links for co-operation. An example is institutional buildings, such as a court: Its fixed spatial positions are at the same time social positions that provide rights and privileges for turn taking and the type of contributions allowed (as well as those forbidden). Spatial usability cues can be semiotically rich and highly visible, as in the case of written instructions. Usability then results in readability. They can be semiotically poor and inconspicuous, as in the case of properties of substance and surface. Note that usability cues should not be reified, but should be taken with reference to the participants; participants must be familiar (or make themselves familiar) with them in order to notice and realize them (cf. the lines on a sports ground). And, of course, participants are free to ignore them. Unlike package instructions, usability cues, in principle, refer to a broad range of *possibilities* of use. It is up to the interaction system (and not to 'space itself') whether and which usability cues become interactively relevant.

To sum up, there are three different resources employed during situational anchoring: the participants' sensory and motor skills and spatial cognition, natural languages' spatial lexis and grammar, and, last but not least, spatial semiotics (referred to here as spatial usability cues); see figure 4.

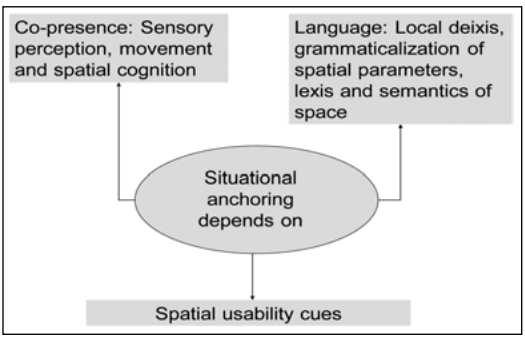

Fig. 4. Resources for the task of situational anchoring

These resources have been studied more or less independently by different research traditions.

- Co-presence in all its implications has traditionally been dealt with in micro-sociological and linguistic face-to-face interaction research (see above, section 3).
- Language of space is of course a topic of linguistics, primarily general linguistics, typology and/or cognitive linguistics (see above, section 2).
- Until now, the empirical analysis of "spatial semiotics" (Ravelli & Stenglin 2008) or "geosemiotics" (Scollon & Scollon 2003) has primarily been the concern of semiotics and (cultural or social) geography (cf., for instance, Cresswell 2009) – if dealt with at all (cf. the references given in Kesselheim & Hausendorf 2007). The idea of spatial usability cues can be connected with the theory of affordances within "ecological psychology" (Gibson 1986) and – as far as objects are concerned – with research on the "design of everyday things" (Norman 2000).

It is suggested here that these resources must be taken into account in order to elaborate on the situational anchoring. Co-orientation, co-ordination and co-operation necessarily exploit all of these resources. They must be analysed for each and every concrete episode of interaction. Otherwise, our understanding of situational anchoring would remain artificially restricted: blind to sensory perception and body movement, blind to language, blind to the spatial semiotics of the material world, and, last but not least, blind to the empirical correlation between the three types of resources.

It does not come as a surprise that space proves to be an interactive achievement even in those (telling) cases in which it has become a part of our material world, where it has become visible and tangible. Sociologically or linguistically, there is no such thing as space as such, nor is there interactional space. There is only face-to-face interaction and how it situates itself in a concrete "here" in terms of co-orientation, co-ordination and co-operation. Each of these makes use of the participants' co-presence (sensory perception, body movement, social cognition), natural language and spatial usability cues.

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